What is claimed is:

1. A ceramic heater comprising: a ceramic body, a heat generating resistor buried in said ceramic body, an electrode pad that is electrically connected to said heat generating resistor and is formed on the surface of said ceramic body, a plating layer formed on the surface of said electrode pad, and a lead member bonded onto said plating layer by means of a brazing material,

wherein content of boron (B) in the surface of said plating layer is 1% by weight or lower.

2. The ceramic heater according to claim 1, wherein content of carbon (C) in the surface of said plating layer is 10% by weight or lower.

3. The ceramic heater according to claim 1 or 2, wherein said plating layer is formed by electroless plating.

4. A method for manufacturing a ceramic heater that comprises a ceramic body, a heat generating resistor buried in said ceramic body, an electrode pad that is electrically connected to said heat generating resistor and is formed on the surface of said ceramic body, a plating layer formed on the surface of said electrode pad, and a lead member bonded

onto said plating layer by means of a brazing material, the method comprising:

forming said heat generating resistor inside said ceramic body;

forming said electrode pad that is electrically connected to said heat generating resistor, on the surface of said ceramic body;

forming said plating layer on the surface of said electrode pad;

applying heat treatment; and

applying baking treatment in a reducing atmosphere so as to connect said lead member to said plating layer via a brazing material.

5. The method for manufacturing a ceramic heater according to claim 4, wherein said heat treatment is carried out at a temperature in a range from 800 to 1200°C with partial pressure of steam of 900 Pa or higher.

6. A ceramic heater comprising: a ceramic body, a heat generating resistor buried in said ceramic body, an electrode pad that is electrically connected to said heat generating resistor and is formed on the surface of said ceramic body, a first plating layer formed on the surface of said electrode pad, a lead member bonded onto said plating layer by means of

a brazing material, and a secondary plating layer that covers said brazing material,

wherein the component of the brazing material is diffused into said secondary plating layer to a depth of 1 μm or larger, and depth of a portion from the surface of said secondary plating layer where the brazing material has not diffused therein is 1 μm or larger.

7. The ceramic heater according to claim 6, wherein grain size of said second plating layer is 5 μm or smaller.

8. A ceramic heater comprising a ceramic body that is formed from a non-oxide material and a metal plate connected with said ceramic body via a brazing material,

wherein said brazing material includes a metal of which liquidas-line temperature is 1200°C or lower as main component and at least one kind of V, Ti Zr and Hf as active metal;

a reaction layer is formed between said brazing material and said ceramic body through the reaction of said active metal and said ceramic body; and

the proportion of oxide of the active metal in said reaction layer between the brazing material and the non-oxide ceramic material is in a range from 5 to 90 atomic %.

9. The ceramic heater according to claim 8, wherein said reaction layer contains at least one of nitride, silicate and carbide of said active layer in addition to oxide of said active metal.

10. The ceramic heater according to claim 8 or 9, wherein the main component of said brazing material is at least one kind selected from a group consisting of Ni based material, Au-Ni based material, Ag-Cu based material, Ag-Cu-In based material and Au-Cu based material.

11. The ceramic heater according to any one of claims 8 to 10, wherein the proportion of oxide of the active metal is in a range from 0.5 to 90 atomic % in a portion of said reaction layer to a depth of 0.1 μm from the interface with said ceramic body.

12. The method for manufacturing a ceramic heater according to any one of claims 8 to 11, wherein a metal paste that contains said active metal in the form of element or hydrogen compound thereof having particle size in a range from 0.5 to 100 μm is applied to said ceramic body, and is heated in vacuum atmosphere of which pressure is 1.33 to 1.33×10^{-5} Pa.

13. The ceramic heater according to any one of claims 8 to

11, wherein said ceramic body has tube-like or cylindrical shape, said metal plate has a curved shape, and radius R_1 (mm) of curvature of said ceramic body in the lead-out section, radius R_2 (mm) of curvature of the inner surface of said metal plate and mean thickness t (mm) of the metal layer satisfy the relationship $-0.1 \leq (R_1-R_2) < t$.

14. The ceramic heater according to claim 13, wherein the thickness of the brazing material layer formed between said metal plate and the ceramic body in the periphery of said metal plate is in a range from 30 to 150 μm.